

MAINE FARMER, AND JOURNAL OF THE ARTS.

"Our Home, Our Country, and Our Brother Man."

Vol. VII.

WINTHROP, SATURDAY, JUNE —, 1839.

No. 20.

THE FARMER.

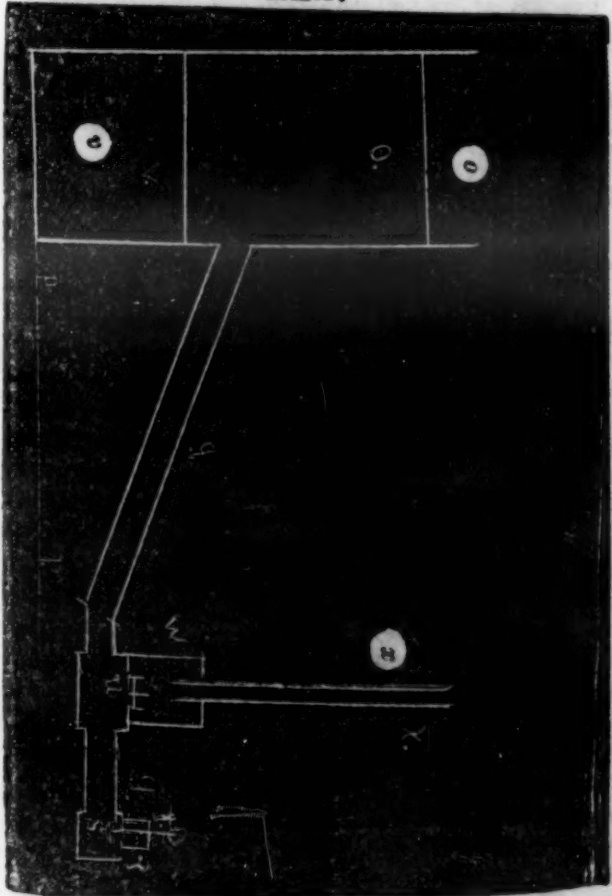
E. HOLMES, Editor.

WINTHROP, SATURDAY MORNING, JUNE —, 1839.

MODE OF RAISING WATER ABOVE ITS NATURAL LEVEL.

In compliance with the request of some of our subscribers, in our 18th number we made some inquiries respecting the best mode of conveying and raising water. We propose, from time to time to give such information upon this subject, as we can collect from different sources. The following is a description of Mongolfier's Water Ram, which we copied sometime ago from a European Magazine, we have forgotten what one. We hope our readers will not be dazzled by the *splendor* of the diagram which accompanies it. In a former volume we threatened, that if we could not readily obtain engravings to illustrate what we wished we should hoist the "black board." We have to draw and chalk the figures with our own hands, and as we make no pretensions to skill in painting, engraving, music, sculpture, or any of the fine arts, we hope our handiwork will be looked upon only as an imperfect attempt to convey such ideas as cannot well be given without some figure of the kind, and not as embellishments to the humble sheet before you. If we succeed in illustrating what could not be understood, without something of the kind addressed to the eye, the object is gained, and the results will be equally as valuable as if they were given by the most splendid copper or steel plate engravings in Christendom. Utility is the main thing—beauty and style may come after.

DESCRIPTION OF MONGOLFIER'S WATER RAM.



Suppose *o* to represent a cistern or reservoir, or the source of a spring which is constantly overflowing and running to waste, by means of a channel a few feet lower than itself as at the level line *pp*. Instead of permitting the water to run over the sides of *o* let it

be conducted to a level *pp*, by means of iron or other pipes *qq* connected with the side of the reservoir, and terminating by an orifice *r* in which a conical or other valve *s* is placed so as to be capable of effectually closing the pipe when such valve is drawn upward. *t* is an adjustable weight fixed on to the spindle of the valve *s* by means of which the valve is kept down and open, any water therefore that is in the cistern *o* will flow down the pipe *q* and escape at the orifice *r* so long as the valve remains down, but the instant it is raised and shut all motion of the water is suspended. Thus situated, the adjustment of the weight *t* must take place, and by adding or subtracting from it, it must be made just so heavy as to be capable of sinking or forcing its way downwards against the upward pressure of the water, the force of which will depend upon the perpendicular distance from the surface of the water in *o* to its point of discharge at *r*, consequently if the valve *t* be raised by the hand or otherwise all motion of the water in the pipe *q* will cease, but the instant the valve is released it will fall down and permit the water to escape. The water by moving acquires momentum and new force and consequently is no longer equal to the column to which the valve has been adjusted, but is superior to it by which it is enabled to overpower the resistance of the weight *t* and it carries the valve up with it, and closes the orifice *r*.

This is no sooner done than the water is constrained to become stationary again, by which the momentum is lost, and the valve and weight once more become superior and fall, thus reopening the orifice and permitting the water to move again and as the pressure of the water, and the weight of the valve, each becomes alternately superior, the valve is kept in a state of constant vibration or of opening and shutting without any external aid whatever. Such is the principle upon which the motion of water in the pipe *q* is produced but the momentum generated cannot be instantly annihilated and it is not only of sufficient power to raise the valve *s* but to burst open the lower end of the pipe *q* unless a sufficient vent be provided by which the accumulated force can escape. Accordingly a second valve *u* is placed near the lower end of this pipe and is made to open upwards into an air vessel *u* with a discharging pipe *x* and consequently when ever the valve *s* is closed the water which otherwise would have flowed from the orifice *r* now opens the valve *u* and enters the air vessel, until the spring of the contained air overcome the gradually decreasing force of the momentum, when the valve *u* closes and that at *s* opens to permit the water to make a second blow or pulsation and in this way the action of the machine continues unceasingly, without any external aid, so long as it is supplied with water, and remains in repair. A small running stream is necessary for the machine as the water at *o* should be kept at one constant elevation to insure the perfection of its action.

A much greater quantity of water likewise escapes at the orifice *r* between the pulsations than can be raised in the delivery pipe *x*, particularly if it extend to any considerable height, for the comparative quantity of water discharged through *x* and permitted to run to waste at *r*, must always depend upon the respective perpendicular heights of the pressing column *o v* and the delivered or resisting column *w x*, and the rapidity of the pulsations, will likewise depend upon the same circumstances. A very insignificant pressing column *o v* is capable of raising a very high ascending column *w x*, so that a sufficient fall of water

may be obtained in almost every running brook, by damming up the the upper end to produce the reservoir *o*, and carrying the pipe *q* down the natural channel of the stream until a sufficient fall be obtained, for the greater length of the descending pipe from *o* to *r* the more certain will be the effect of the machine, since if the column *q* is not of sufficient length its water will be thrown back into the reservoir instead of entering the air vessel. The author has constructed several of these machines with great satisfaction in different parts of England, and in order to show their efficacy subjoins the following particulars of one which has been in constant use for about two years. The reservoir *o* is a basin about 10 feet square and 2 feet deep, formed partly in limestone rock and partly in brick work, the supply of water being from a natural spring.

The pipe *g* is of cast iron 14 yards long and 2 inches diameter. The piece at the end containing the valves and the air vessels is about 15 inches long. The valve 1 inch and a half in diameter each, and made of brass. Contents of the air vessel about 1 gallon, the height from the surface of the water at *o* to its point of discharge at *r* is 6 feet 4 inches, measured perpendicularly. The delivering pipe *x* is of lead, 1 inch in diameter and proceeds horizontally under ground for about 104 feet and then rises perpendicularly to the height of 54 feet 3 inches above the discharging valve at *r* when it delivers the water into a large cistern. The water is then raised 47 feet 11 inches above the surface of the spring that supplies it and this by a fall of only 6 feet 4 inches.

So circumstanced the valve *s* makes fifty vibrations or opens fifty times in a minute, when it loses about 2 quarts of water, and injects nearly a quarter of a pint into the elevated cistern at each pulsation, the water lost being to that raised very nearly as 17 to 1. This may appear a small quantity of water, but when it is recollected that the machine is constantly at work day and night, and furnishes 6 quarts of water every minute, this will be found a supply adequate to a very large household establishment.

In another instance, a machine of similar dimensions furnished seven quarts of water per minute to a reservoir at 28 feet 6 inches above the water ram, the fall in the pipe *q* being 6 feet.

This simple and elegant machine has been long known in England, though but little used.

Mr Matthew Boulton of Soho, near Birmingham, obtained a patent for it in 1797, and a water Ram of considerable dimensions was constructed at the same time, for supplying his house with water. The machine was however, not found to answer as at first constructed, or indeed as above described, because from the mutual incorporation of the water and air that takes place, the successive quantities of water that were impelled into the air vessel absorbed the whole of the air, which it contained, and it became quite filled with water, and ceased to afford that elasticity which is indispensable to the working of the machine. This was also discovered by M. Mongolfier in France, who in 1816, obtained an English patent for his improvement of this machine by introducing a very small snifting valve opening inwards into the lower part of the air vessel, but kept shut by a small spring. This valve is self-acting, and effectually prevents the escape of any air or water from the air vessel; but when the water is thrown back by the shutting of the valve *s*, it produces an instantaneous vacu-

um at the extreme end of the pipe q, upon which the snifting valve opens and admits a sufficient quantity of air into the vessel to keep it constantly replenished; and by this simple addition, is the water ram rendered continuous in its action.

Original.

CULTIVATION OF ROOTS IN MAINE.

Messrs Editors:—The cultivation of roots is a subject which has very frequently of late years engrossed the attention of agricultural writers. Some writers have probably recommended the extensive culture of roots who had but little experimental knowledge. Mere theorists are unsafe guides for the farmer. Theory without practice or practice without theory, cannot make a skillful farmer.

In a communication I wrote for the *Maine Farmer* a few years ago, I recommended in very high terms the culture of roots. Previous to that time I had but little experience in the growing of root crops with the exception of potatoes. If in writing the communication referred to, I was a mere theoriser and committed any mistakes it would seem to be the part of duty to retract. In No. 12 of the present volume of your paper is a short communication which I wrote on the subject of root crops in which I differed somewhat in opinion from Mr. Butman of Dixmont. This gentleman it would seem is a fast friend to potatoes and I acknowledge that I am advancing to nearly the same opinion nevertheless I will not "give up" the culture of other kinds of roots. For neat cattle no other root can compete with the potatoe; for cows giving milk they should be always boiled or steamed. For sheep the ruta бага is an excellent root undoubtedly. For fattening hogs every good farmer will raise a goodly quantity of carrots as well as potatoes, for the hog is extremely fond of variety, and sugar beets should not be overlooked, these may prove to be a good substitute for apples and pumpkins. The beet is a root that is very agreeable to the taste, and the farmer who gratifies the appetites of his animals, (especially swine) is a wise man.

Upon the whole I am of opinion that if a farmer wishes to cultivate roots extensively, the potatoe is preferable on many accounts. This root may be cultivated with very little labor and without much manure. Before I close I must make one observation on the calculations made by some writers, in regard to the value of roots by the bushel. A late writer in the *Yankee Farmer* speaks of the comparative profits of cultivating three acres of land, 1 acre of corn 1 acre of potatoes, and 1 acre of ruta бага. The corn upon the said acre valued at 4 shillings per bushel he makes worth 41 dollars. The potatoes 560 bushels at 20 cents per bushel, he calculates a net profit of \$63.95. The ruta бага 1236 bushels at 20 cents per bushel, he calculates a net profit of \$224.20.

If all the farmers of our State could carry their produce to the Boston market without expense, the calculations of the said writer may be correct enough, provided always that the market is not over supplied with vegetables. But suppose we set down the price of corn at what it is worth in this State, one dollar per bushel, potatoes at fifteen cents per bushel, and ruta бага at five cents per bushel, which is very near the truth, the result will then be.

1 acre of corn 94 bushels at \$1 per bushel.	\$94.00
1 acre potatoes 560 bushels at 15 cents,	84.00
1 acre ruta бага 1236 bushels at 5 cents per bushel	61.80

A farmer may indeed appraise the worth of ruta бага at 20 cents per bushel, but the value must be imaginary and not real. Some writers have gone so far as to opine that ruta бага is worth as much pound for pound, as English hay for neat stock, if experience proves all this to be true, farmers who have soil suited to the culture of this root may keep a prodigious num-

ber of neat cattle on a very small farm. I may hereafter give my ideas still further upon this subject but I close now in haste.

Rumford, May, 1839.

RESOURCES OF MAINE.

Slate.—This article suitable for roofing and other purposes, is found in great abundance in Barnard, and some other towns near the Piscataquis river. This can be wrought so as to become a branch of productive industry, whenever the facilities for doing it on a large scale shall be secured.

Lime Rock.—Vast quantities of lime are manufactured and shipped along the coast to the extremity of the Union, and it finds its way far into the interior. In our boyhood, the "Thomaston Lime" was all the fashion in the interior of the State of Connecticut, while large beds of Lime rock were known and wrought within that State. It is estimated that 400,000 casks were sent from Thomaston in 1836, and that this afforded nearly \$50,000 clear profit after paying all expenses. Probably lime rock was shipped from Thomaston and burnt in other places sufficient for 30,000 casks.

Besides this, a large quantity is burnt at Camden, Hope, Lincolnville, and other places, amounting in 1836 to nearly, or quite 300,000 more. Lime rock has recently been discovered in numerous quarries in the interior of the State and its value in Agriculture is just beginning to attract attention. The demand for it, on this account, will be greatly increased, and the demand for labor in this department be increased proportionately. The quarrying, burning, furnishing of wood, making of casks, and transporting of it to market, must employ a great number of men. Probably more than 100 sailors are employed in transporting the lime.

Marble.—The sale of manufactured marble from the Thomaston quarries is estimated at \$9,000 per annum, and there are other localities which can be wrought with advantage, when the demand for it will warrant suitable investments. Many splendid varieties of marble may be seen in the Cabinet at Augusta, which belong to the resources of Maine.

Gypsum or Plaster. Plaster, so extensively used in this State, is brought chiefly from New Brunswick and Nova Scotia, but, as it is manufactured in this State at a good profit, it is justly regarded as one of its resources. The mills at Lubec alone, in 1836, ground 12,000 tons, and might furnish nearly twice that amount. Then, there are mills for grinding it at the head of navigation, on nearly all our navigable rivers, and they are scattered along the coast in great numbers. The use of this in agriculture is increasing, and our ships carry it in the stone or in casks to other parts of the country. Large quantities are now used in ornamenting buildings. It was estimated that 15,000 tierces were converted into stucco for this purpose, in 1836.

Peat and Marl.—The low lands and marshes in the State afford abundance of peat which now is not valued, but which must one day be considered of great importance as wood becomes less abundant and more expensive. Peat is now used in some towns in Mass. and Conn. as the most economical fuel, and there can be no doubt that the time will come when the same will be true in Maine. Beneath this peat, marl is very common, which is generally a valuable manure, and will be found an important item in the resources of the State, when Agricultural zeal and skill shall become common as they ought to be.

Muscle Beds or Sea mud, and other Marine manures. These deserve a notice in this connexion, as they form an important item of what may be called economical geology. Extensive flats are left bare at low tides, on a large part of our coast, affording immense quantities of the most valuable manure, which can be carried up our

rivers and deposited on the soil in their vicinity, and yield a rich return to the husbandman. This is already perceived by many enterprising farmers who now transport it, in some instances, several miles from the coast. The experiments thus far prove that this can be used to advantage where it can be transported at an expense not exceeding four or five dollars the cord. Sea weed can be transported in the same way, and large quantities may be used with advantage.

On the western bank of the Damariscotta river is a remarkable collection of Oyster shells, which may puzzle the naturalist to explain. For nearly a quarter of a mile, a bank of solid shells rises above the water at ebb tide, from five feet to more than twenty. One elevation is said to be 27 feet high by accurate measurement. The shells extend back from the river to a considerable distance, but the depth of them is not known except at the water's edge. A thin soil is formed over the surface, on which grass, shrubs, and trees are growing. Many of the shells are decayed partially, while others retain their original shape. Arrow points and other Indian implements are sometimes found here, which seem to give some plausibility to the Indians' tradition that "a great while ago, great many Indians come here—eat oysters." The immense quantity deposited, baffles conjecture, as to the mode of their deposit. Some have thought that the waters once covered this place, and that they accumulated generation upon generation to this amazing depth; but if they had lived and died in that position, it is incredible that none of the shells should be found closed, as when alive, or that there should not be more of other substances deposited among the shells. They appear as if opened and the shells thrown promiscuously, as would be most natural if large tribes of Indians came year after year to open and feed upon them. These shells would be exceedingly valuable if burned and used as a manure upon soil not already overstocked with lime. Recently, while in Conn. we have seen farmers hauling oysters shells nearly 30 miles for this purpose, for which they had paid two, three, or four cents a bushel. In a sea-port town where fuel was expensive, we saw piles of the shells enclosed in a log pen with wood beneath and scattered through the piles for the purpose of burning them for manure. This is readily sold at prices which pay the expenses of fuel and labor and the market value of the shells.—School Visitor.

Foot Rot in Sheep. We find in our last *Farmers' Magazine*, the following directions for curing this disease, which are simple, cheap, and we should think effectual.

"Towards evening draw the lame sheep from the flock, pare the hoof of the diseased foot, as far as it has any dirt or fester under it; wipe it dry and clean, and bathe the tender parts in the evening with a feather previously dipped in butter (muriate) of antimony; keep their feet dry during the night, and on the following day they may be turned into a pasture by themselves, where they will daily become better. At the expiration of about a week they should again be examined. The majority of them will be found perfectly well, and may be allowed to join the sound flock; as they will be clear of all infection. Perhaps about one in ten will require a little more paring with a knife, and a very slight redressing of the sore place, with the feather prepared as before."

The Sheep of Palestine. A writer in the *Philadelphia Ledger*, speaks of some wool taken from a ewe brought from Palestine, in the following terms: "The climate of Jerusalem is not unlike that of a portion of our southern country, and I cherish a hope that at no distant day we may produce, with proper care, the material for making the finest Cachemir Shawls. You will perceive the beautiful fibre that is used

in that beautiful manufacture. The fleece of the animal is usually of a weight of 4 1-2 lbs. The tail which is difficult to distinguish, is of a breadth of 24 inches and length 16, squared at the end. I have just sent from Mulhouse works to Thomas B. Jacobs, Esq., Churchtown, Lancaster county, (son-in-law to Com. Elliot,) who has already some half blood lambs. I consider that Com. Elliot has "shook a stick" to a very good purpose for the agricultural community of our country.

Your obedient servant,
An Agriculturist and Manufacturer.
Boston Times,

LEGAL.

SUPREME JUDICIAL COURT.

BANGOR, MAINE, JUNE TERM, 1837.

Warren and others v. Bartlett and others.

The usual contract lien upon lumber, for the price of the stumpage attaches to the proceeds in the hands of a bona fide purchaser, for a valuable consideration, who had notice of the lien.

Assumpsit for money had and received. At the trial before *Perham J.*, in the court below, it appeared, that the plaintiffs, who were owners of a tract of timber land, in 1834, gave to one William Bailey, a permit in writing, to cut timber therefrom, reserving to themselves the usual lien upon the timber for stumpage, which it was agreed by the permit, should be paid in June, 1837.—Bailey immediately on taking said permit assigned it to the defendants, and all lumber that might be cut under it, as security for supplies to be furnished by them in carrying on the business of lumbering. Bailey cut a large quantity of lumber in the winter of 1834-5, and drove his logs to the booms in the spring after. He sawed the larger part at the mills in Orono, during the summer of that year, and run the lumber after it was sawed, to the defendants, at Bangor, who acted as his consignees, and sold the boards, and credited him with the proceeds, charging him with the customary commissions on such sales. A small portion of the lumber had come into the hands of the defendants in June, when the stumpage fell due. Bailey was at that time in good credit, and so remained during the whole of the year 1835, and till after the commencement of this action. The plaintiffs had knowledge that the defendants received and sold said lumber, but gave no notice to them that they should claim pay of them, till just before the commencement of this action. At the time the suit was brought, the defendants had received and credited Bailey as the proceeds of sales, more than the amount of the plaintiff's claim for stumpage, but had not received in all enough to repay the amount of their advances for supplies. There was a quantity of logs in the booms in value about equal to the plaintiff's claim for stumpage, and there were other logs further up the river.

A verdict was returned for the plaintiffs, and the cause was brought up to this court on exceptions to the ruling of the judge.

McGaw, Allen & Poor, and J. Appleton for the defendants contended—

1. That the plaintiffs had a lien only upon the lumber which gave them a right to the possession and no more.
2. That their remedy was upon the thing, and was lost by a neglect to retain possession.
3. That the plaintiffs waived their lien by permitting the lumber to be sold after their claim for stumpage fell due. They held a claim upon Bailey, and looked to that for security instead of the lumber.
4. That to allow the proceeds to be drawn from the hands of bona fide purchasers would be against the interests of trade.

E. Brown and Warren for the plaintiff.

Weston C. J. delivered the opinion of the court at a subsequent term, that the plaintiffs

had never parted with their property in the lumber, and might in this form of action recover the proceeds from any purchaser who received the lumber, with a knowledge of the plaintiffs' lien.

Judgment on the verdict—*Law Reporter.*

SUPREME JUDICIAL COURT AT BARNSTABLE.

Inhabitants of Brewster vs. Inhabitants of Dennis.—Was an action of assumpsit for the recovery of money expended by the Plaintiffs for the support of one Elijah Wixon and wife, paupers, whose legal settlement was said to be in Dennis. It was admitted by the Defendants that said paupers had their settlement in Dennis, unless they had acquired one in Brewster, under the fourth mode prescribed by statute, which gives a settlement to a person in any town wherein he shall own an estate of freehold or inheritance and shall have lived on the same three years successively. The following facts appeared in evidence: In May, 1806, the pauper agreed for the purchase of a piece of land by parole, and paid for the same but took no deed. That he had dwelt upon the same, and occupied and improved the same up to 1829. The Court ruled that though no deed was taken of the premises, yet the improvement of the same 20 years gave the pauper a freehold. The Court also ruled that the person claiming a settlement under this mode must live upon and improve his estate 3 years successively without assistance as a pauper [which point was reserved for the decision of the full Court.] The question then put to the jury was whether Wixon and wife between the 16th June 1826 and 16th June 1829, had received aid or relief from Dennis as a pauper. The jury found that they were so relieved, and the verdict rendered accordingly. The question as to the construction of the statute was reserved.

Howes vs. Chapman.—This was an action of trespass for taking and carrying away sea-weed from a place called "Sesuit Landing," in Dennis. It appeared that 26 or 27 years since the town of Dennis laid out a road through lands of sundry persons, and the father of the Plaintiff, to Sesuit Landing, and also laid out a land place. That the respective rights of all concerned were mutually referred to arbitrators to decide as to the damage to individuals over whose land the road passed, and for the landing place. The referees reported, and money was paid individuals agreeably to the award, but no deed of the landing place was given to the town by the Plaintiff's father, the owner of the premises. It also appeared that the plaintiff held under his father.

The Defendant claimed a right as a citizen of Dennis to go on and take the seaweed, claiming the fee in the town and that the town approved the taking.

The Court ruled that as there was no deed, if a grant to the town or a dedication for public use was to be presumed, they must be presumed for a landing place only, and that the former owner of the soil has still a right to the land for all purposes but that of a landing place, and therefore all the seaweed lodging there belonged to such owner, and that he might maintain trespass for taking the same. Verdict for Plaintiff—damage \$1.—*Yarmouth Register.*

MISCELLANEOUS RECEIPTS.

"Best way in the world to make Indian Cake" improved, especially if you have a little Indian Wheat flour.

Messrs. Editors.—I like Indian Cake made according to the recipe in the Farmer, No. 4. which for convenience sake we denominate Alderman cake.

This may obviate the difficulty of those who have "conscientious scruples" about calling it Indian cake because made partly of flour. But the improvement. That consists in substituting Indian wheat flour instead of common wheat flour, and mixing it thinner with

milk if you have it. This, with a proper quantity of molasses, saleratus and salt, makes a lighter and better cake at least, this is the unanimous opinion of some ten or a dozen palates that have tried it repeatedly.

But please try it a few times before you recommend it.

I think it is quite as good with a larger proportion of Indian wheat flour; this of course should be ground coarse so that the hull will not go through the bolt.

I am fully satisfied from a trial I made last year, that this is one of the cheapest grains we can raise, and if it can be so cooked as to make a wholesome, palatable bread, I see no reason why it may not be a profitable grain, especially if it is as good for hogs as some have testified, even if it do not yield a hundred bushels to the acre.

E. F.
V. May 18, 1839.

To cure Yellow Water in Horses. Take 1 oz. alum 1 oz. copperas 1-2 oz. saltpetre, 1-4 oz. gamboge; pulverize them, and put the compound in one pint of water; give it in doses of one table spoonful each, mixed with grain or provender. Give a dose each morning for three days, then skipping three. Proceed thus till nine doses have been given. Put a rowel in the breast.

N. B. The rowel need be used only in severe cases.—*Gen. Far.*

To cure Scours in Cattle. A piece of common clay of the size of a goose egg burned till it becomes red, pulverized with the same quantity of hard wood coal, mixed with water and given to any kind of horned cattle seldom fails to cure the worst cases of scouring. If one does not cure, try another.—*lb.*

To stop a leak in a cask. Take whiting and mix it thoroughly with soap—about an equal quantity of each and rub it into the crack.

China and glass ware may be firmly and neatly joined by a thick solution of isinglass and gin.

Light Corn bread. Stir four pints meal into three pints tepid water; add one large tea-spoonful salt, let it rise five or six hours; then stir it up with the hand, and bake it in a brisk oven. Another method is to make mush, and before it gets cold, stir in half a pint of meal. Let it rise and bake as the first.

Vegetable Extracts. In the north of France an excellent extract of the herbs used in Soups and broths is made by boiling them very slowly with a sufficient quantity of salt, and afterwards evaporating the fluid. A little of this extract, dissolved with gum Arabic in hot water, is said to make capital Soup.

Preservation of iron from rust. A mastic or covering for this purpose proposed by M. Zerm and sanctioned by the Societe d'Encouragement, is as follows; eighty parts of pounded brick, passed through a Silk Sieve, are mixed with 20 parts of litharge; the whole is then rubbed up by the mulier with linseed oil so as to form a thick paste, which may be diluted with Spirit of turpentine: before it is applied the iron should be well cleaned.

From an experience of two years upon locks exposed to the air, and watered daily with Salt water, after being covered with two coats of this mastic, the good effects of it have been thoroughly proved.—*Bull. d'Encour. Jan. 1830.*

Chalk for Calves.—To prevent the scours in young calves, a little chalk is recommended to be put in the milk.

Paint for Garden Fences, Out Houses, Eaves, Troughs, &c. Melt over a slow fire in an iron pot or kettle two lbs. of rosin and one lb. of roll brimstone; when perfectly liquefied, add slowly three gallons of train or fish oil, and when perfectly incorporated, add Spanish brown, Venetian red, yellow ochre, or any other dark color, till of sufficient consistency to cover wood of a uniform color; use it warm with a brush, and when dry give it a second coat, and you will have a paint that weather is incapable of affecting. It takes longer to dry than common paints, but if rightly managed usually becomes hard in five or six days.—*Genesee Farmer.*

A composition for coloring and preserving Gates, Poles, Barns, Roofs, and Timber generally, from the weather.—Melt 12 ozs. rosin in an iron pot or kettle, add 3 gallons of train oil and three or four rolls of brimstone; when they are melted and become thin, add as much Spanish brown, or red or yellow ochre, or any other color you like, ground as fine as usual with oil, as will give the whole the shade wanted.—Then lay it on with a brush as hot and thin as you can. Some days after the first coat is dried, lay on a second.

It is well attested that this will preserve plank for years, and prevent the weather from driving through brick wall.—*Domestic Encyclopedia.*



AGRICULTURAL.

SEMI-ANNUAL REPORT,
Of the Trustees of the Ken. Co. Ag. Society.
AUGUST, 1838.

Mr. President and Gentlemen of the Ken. Co. Ag. Society:—In presenting our semi-annual report, your attention is first called to the state of the treasury. At the last annual meeting the report, exhibited by the treasurer, showed that we were destitute of funds, and it was voted by the society to tax the members, one dollar each to provide means for carrying on the operations of the society this year. In anticipation of the funds which would be raised in this manner, your Trustees early in the season, apportioned among the several Standing Committees, three hundred dollars; giving the Committee on Stock one hundred and ten dollars; the committee on agriculture, one hundred and ten dollars; and the committee on manufactures, eighty dollars; which sums were offered in premiums. Preparation must be made for paying these premiums, together with the incidental expense of the coming Show and Fair.

It is to be expected that each member will avail himself of an early opportunity to pay his assessment. A sum must soon be raised or we cannot avail ourselves of the Bounty of the State nor meet the demands upon the treasury. No member of this society should attempt to excuse himself from the payment of his tax by referring to "hard times," nor by the consideration that the small sum of one dollar, his tax, will make but a trifling difference in the means of the society. Every dollar paid in to the treasurer by the members, enables him to pay out two dollars. We trust nothing need be said to convince any one that the small sums, which have been paid into the treasury of this society, have been profitably invested.

These trifling investments have yielded a profit not merely to the individuals who have made them, nor the agricultural interest alone, but to the county at large, to the whole community. We assert with confidence, that the dollars which have been paid into the treasury of this society, have been refunded to those who paid them, with interest; and, not like many other appropriations of money, profitable only to those who make them, they have yielded an equal profit to their neighbors; every individual within the sphere of the influence of the society has received in some shape, a greater or less dividend of the increase.

The fact, that by unusual exertions in our labors, and by increasing our information, we have the better sustained ourselves through a course of cold seasons and "hard times," affords us evidence that a continuation of our inquiries and exertions, will increase our prosperity under a more favorable state of things, though we may not sensibly feel the need of it. A more favorable season has enabled us to produce an abundant crop, with less efforts; still much is within our power to accomplish by directing our efforts to proper objects, and to this end we should continue our inquiries and our investigations.

It will be remembered that the Trustees were last year, authorized to offer a premium of ten dollars, for the best treatise on the grain worm, describing its origin, habits, manner and time of operation, and the means of destroying it, or preventing its depredations. We have received their communications upon the subject, which

have been published in the Maine Farmer. Although we are of opinion, that neither of the competitors has accomplished the object for which the premium was offered, (that of destroying the insect, or of preventing its depredations) we think Mr. Plummer should receive a gratuity of five dollars, as a token of the obligation which we, with all others engaged in the cause of agriculture, feel for the valuable information given in his communication. It is to be hoped that he, and others who have given attention to the subject, will continue their researches till the object is accomplished, till means are discovered to exterminate the enemy or render him powerless.

We have much to learn of this insect, if it should prolong its visits within our borders. The theory that "airy situations are not exposed to its ravage," which has been adopted by some and last year proved true, seems this year to have failed. Early sown grain, in this vicinity, in all locations whether high or low, has been injured by the fly. This does not contradict the principle that elevated situations are less favorable for its operations, than others. If the air should be very still at the time the insect is depositing its eggs, there can be no reason why grain upon high land should not suffer as much, as in other situations; still generally, it may be less exposed. Three successive years have given us proof that late sowing has been the most effectual means of defence against this enemy. This year he commenced his attack on the 27th of June, and closed the campaign about the 19th of July. By reason of a more favorable season, the weather being hot and moist, he was prepared to make an earlier attack, than in the two past years.

We have named late sowing, as the most sure method of securing our wheat crop from destruction. This has generally been considered objectionable, on account of the greater liability to rust and mildew. For several years past late sown wheat, on all lands, has filled well; and it is thought we may be sure of its generally doing so by taking care not to manure too highly; and by sowing plenty of seed. Late sowing brings the growth of wheat into the hottest part of the season, which sometimes occasions too rapid and luxuriant growth for the benefit of the crop. Light manuring and heavy seeding is the remedy for the evil.

Some of our farmers have been in the habit of mixing wheat and barley, and sowing it together. They tell us that both the wheat and barley produce better than either alone, and that they have never known the crop injured by rust. The proportions are one bushel of barley to two of wheat. This mixture, when the grain is well cured, produces flour of a very good quality, and often requires a nice taste to distinguish it from the best wheat flour. The Dutch barley or two rowed, possesses least of rank smell, and produces the sweetest flour.

The cultivation of barley has been more largely engaged in, within a few years, and it is now considered a very important crop with the farmers of this county. The attention of the society has been repeatedly called to this subject in reports of the trustees. We have labored to make the value of this grain, as an article of food for man and for the hog, understood; and we now have the satisfaction to see a prospect of both being plentifully supplied with this wholesome and nutritious food.

Barley has been recommended, as a substitute for rice, and it is said to possess all the properties, and answer all the purposes of that invaluable, and as many think indispensable grain. We now have the barley, and we need only the apparatus, or machinery to divest it of the husk or hull, to be able to judge for ourselves of its value in this use of it. The representations of the value of hulled barley, are so plausible and so well authenticated, that we recommend that a committee be raised to communicate with such persons in other States, as

can give information of the construction and cost of a mill or machine for hulling it. If our information in regard to the value of the article is correct, we need to be informed of the cost of a machine to prepare it for use. In all probability the machine can be connected with our flour mills; but we need to know more about it before any man will put one in operation. Many thousand dollars are annually paid by Maine for Southern rice, and if Northern rice will answer all its purposes, and is equally as good; the fact should be known. Our money would be saved for other purposes.

The location of the barley crop as well as others deserves notice. It is not exactly true that barley should be sown "in the fire," though it is certain, it will not thrive "in the mire." Rather low, flat and cold, clay soils produce bountiful crops of barley, if they are made loose and light, by thorough working or manure, and prevented from inundation by draining; but on such lands it must be sown late. It is peculiarly true of this grain, that if it is once checked in its growth by cold or rust, it never recovers. On most lands as late as the 20th of May, or the 1st of June is preferable to earlier sowing.

We often see it stated that loose sandy soils are best adapted to the culture of the ruta baga. We are disposed to differ from those who express this opinion. So far as our experience and observation extends, a preference should be given for this crop to soil rather moist, containing a portion of clay, a clay loam. Those, who cultivate this root on any land, except it is very highly manured, will find that a small quantity of well fermented manure, immediately under the plants, will increase their growth and richly pay for the extra expense. Ashes, either leached or unleached, applied after the plants are up, operate as a stimulus and increase the crop. The farmers of this County were rather driven into the culture of roots, for food for stock, by the scarcity of hay; and if they have become so well acquainted with the culture of them, as to continue it for profit, it may be to their advantage that they had but small crops of hay. We deem it a blessing that we have this year an abundant crop of hay. It is a blessing and was intended as such, let it not be made a curse by our use of it. If we increase our stock to eat out all our hay when we have abundant crops, and place our whole dependence on hay for keeping, to the neglect of the culture of the root crops, we may expect before many years, to witness a repetition of what has so recently transpired; hay worth \$20 to 30 per ton, stock sold for less than half the cost of rearing, and some starving to death.

Stock raising is an important branch of our farming; but important as it is, it has received too much of the attention of the farmers in this County; not that they have taken too much care in selecting their stock, but that they have kept too much; not that they have done too much to improve their breeds, but that they have depended too much on raising young stock for sale and have raised that of a quality which has not commanded the highest price in the market. The present seems to be a favorable time to make improvement in the neat stock in this country. There are but few bulls but good ones now left in the general slaughter that has been made among the stock; most of the flat sided, high boned, thin thighed, long haired, worthless animals, with which the country has been infested in times past, are cleared out in one way & another, and if their places can be supplied with some good animals from abroad, before they are filled with another similar set; it will be a permanent advantage to the country.

Caution should be exercised in increasing our diminished stock, not only to supply the deficiency with good animals, but to guard against increasing the number beyond the ordinary means of keeping. The raising of grain should be the principal object with such farmers as

have land suitable for tillage; but increasing the grain crops on a farm has much the effect, that spurring one side of the horse of Hudibras had "the other side went with it;" increase in the crops of hay, and means of keeping stock go with it.

In this connection we refer again to a subject which we have frequently brought before you, and that is, the necessity of frequent ploughing, whether the object be immediate profit or permanent advantage to the soil. The more we experience and witness, the more we are confirmed in the truth of this position. Instances can be referred to, where there is a difference in the tilled crop of more than one half in favor of land which has been but two years in grass, in the same kind of soil, ploughed, manured, and managed in the same manner with that which has lain in grass six or seven years.

If a farmer is desirous of increasing his crop of hay, we would say to him plough up your fields. If he inquire what he shall do for manure, we would say plough more. If he desire to do his labor easily we would say plough often. If he would get good crops, with little manure we would repeat plough frequently. If he would enrich his farm we say plough it. If he would have the greatest profit from his farm & labor, we would tell him never mow the same field more than two years before you plough it. Some hints on the expense of ploughing in this State, compared with some others, may not be unprofitable here.

We often see in the field in this State, two men at work with one yoke of oxen; one to hold and one to drive. By spending a whole day they get over three quarters of an acre of ground. In some other places we should see one man with a span of horses plough two acres of the same kind of land, in the same time, and equally well. Will not this difference in the expense of performing the labor account in a great measure, for the difference in the size of the wheat fields, between this and the State of New York, and for our having frequently to go there "to mill?" It is true that much of our land is not so easily cultivated, but a great portion of the land we till, almost all, can be worked with horses after the first ploughing. Much can be gained in performing our farm labor by working different kind of teams, and much by the better training of those we have. It can hardly seem necessary for two men to spend a day in the field, to get a day's work out of two oxen.

We may be too fast in adopting new notions, but we shall be more likely to be too slow. The prosperity of the country depends on the success which attends her agriculture. All are interested in it. We who are immediately engaged in its labors, should profit by every thing capable of affording instruction. By noticing the practices and examples of other States and other countries, we may learn profitable lessons. Massachusetts, our parent State, has set us many noble examples. The work, which is going on there at present, in reclaiming bogs and such lands as have lain waste, is an object worth our notice. From the report of the agricultural survey of that State, it appears that the produce in hay of some single acres of this reclaimed bog, has been sold in the market for one hundred dollars for the crops, in one year. The bogs are drained and ploughed and made to produce English grass in great abundance. We suggest the idea of this society's raising a committee, or directing the Secretary to correspond with the agricultural societies of Massachusetts and other places and collect information on this subject.

We have an immense quantity of this kind of land, that lies almost waste throughout the whole Country. It is calculated that there is, within five miles of this spot, bog land enough, which if reclaimed and put in the state of productiveness that some similar land is in, would

produce annually five thousand tons of good English hay. Other sections of the country perhaps have as much. What an addition may be made to the food for stock and manure for upland in this vicinity.

Another proposition which we make for the interests of the mechanic and farmer is, that an agent be chosen by this society, to represent the interest of the producing classes in the Legislature. The specific object to be, to attend before the respective committees, and assist in devising the best modes of advancing the great object of our labor; to render the State independent and prosperous. This must be done, if done at all, through the agency of the producers, the laborers. Should such an agent be chosen, it will be advisable that funds be raised at the time to remunerate him for his services, and that notice of his election or appointment be published, with an invitation to farmers and mechanics throughout the State to correspond with him, upon the subject of their occupation, and suggest such enactments as they may deem for the interest of the State. The agriculturalists and mechanics need the services of such a man, the members of the Legislature need his services, and the committee on agriculture especially need the service of just such a man.

In closing this communication, we would call your attention to the goodness of Providence in bestowing his blessings upon the labors of your hands. While your barns and store-houses are filled to an overflowing with the good things, which you have received from the hand of God, let your hearts overflow with gratitude to him who has given you all these good things liberally.

NATHAN FOSTER, }
ELIJAH WOOD, } Trustees.
OAKES HOWARD, }

ANNUAL REPORT,
Of the Trustees of the Ken. Co. Ag. Society.
FEBRUARY, 1839.

Mr President and Gentlemen of the Kennebec Co. Ag. Society:—The frequency with which we have been called upon, within a few past years, to make communications to this body, upon the same subjects, forbids that our report on this occasion should be marked with that character of novelty, which is necessary to render the discussion of any subject interesting. We hope, however, to be able to present some ideas in such a manner as to interest you for the passing moment, although they are not new. Possessing, as you do, the powers and the habits of investigation, we present our views upon these subjects the more cheerfully, knowing that unless you find them based upon reason, you will not adopt them in your practice; that you will examine for yourselves, and adopt or reject them as you find them well or ill-founded. The great object to which our energies, as an associate body, have been, and we trust ever will be directed, is the public good; the increase of wealth, and the means of comfort in the community. This object, if effected at all, must be effected by carrying out the views expressed in the charter, which we applied for and obtained from the Legislature of the State, viz: "encouragement of Agriculture and the Mechanic arts." Without any remarks upon the necessary connection of these, with the other great sources of national and individual enterprise and wealth, and their dependence upon it, which is acknowledged by every one, we shall confine our remarks to the connection between Agriculture and Manufactures, the productive branches of industry, considering Commerce as the market-cart which must necessarily lie useless when the products of the other two branches are not furnished. Individuals have made themselves wealthy by carrying on a traffic, an exchange of commodities on a small scale. Individuals and nations have increased their wealth and means of comfort by extending

their commerce to different parts of the world and at the same time added to the convenience of those with whom they have had this intercourse. To this branch of industry we, with all other civilized nations, owe many of the comforts and luxuries of life. It affords honorable and profitable employment to a large portion of civilized man. But ours is the more honorable employment of being the producers of the articles, which render the exchange necessary,—by being the creators of the capital by which the business of the world is carried on.

It is to friendly intercourse that civilized nations are largely indebted for their superiority over barbarous. Without this intercourse ages must have rolled away before the improvements in agriculture and the mechanic arts which we have witnessed in this country within a few years, could have been effected, not to mention how much we are indebted to the same source for the diffusion of general knowledge. But all this has added nothing to the wealth of the world, or to the means of subsistence, it has only diffused them. It has brought to our knowledge facts which existed before; it has only brought to our doors the produce of other lands; and the farmer who causes two ears of wheat to grow, where grew but one, or he, who from the rough ore, manufactures so simple an article as a pin, does more towards the actual increase of wealth, than the merchant who exports or imports thousands and thousands of bushels of grain, or hundreds of thousands of dollars' worth of the common articles of merchandise, though he may make a fortune by it. No nation, or state or community, ever did, or ever can flourish long, when the productive branches of industry are not fostered and encouraged by the government. They are to the community what life is to the system; they give motion and activity to every limb, and if success in one is paralyzed the other must languish with it. Let agriculture cease to yield her annual harvest, and the mechanic must leave his work-shop to seek for the means of subsistence in the forest or the lakes and rivers; let the manufacturer cease to supply his various machines and fabrics, and agriculture can no longer be successfully carried on. The agriculturist may indeed for a time retain his flocks and herds, and in a half civilized state live upon their milk and flesh, and clothe himself in their skins. Agriculture and manufactures are children of one family, and equally deserving the protection of the parent, equally require the fostering care of those whose aim it should be to devise measures for the common good. We can conceive of a location where the only dependence for sustenance and wealth is upon the productions of the soil; where all the energies of the population must be directed to one branch of industry.

But the State of Maine is not that miserable spot, if such there be in creation. We have facilities for becoming as independent as any other portion of the world, of equal extent,—as independent as it is desirable that any community should be for their own happiness. Our hardy and enterprising yeomanry, the fertility of our soil, an abundant water-power, affording the means of carrying on manufacturing to any extent, our mineral resources afford us means of independence which are enjoyed by few districts under heaven. The recent Geological Survey of the State shows that we have within our own borders abundant materials of the best quality for the manufacture of glass, iron, and almost all the productions of industry for a supply of which we now depend on our sister States or foreign countries.

Notwithstanding our location has been denominated the "American Siberia," the long agitated question is now satisfactorily settled, that we need not 'go to New-York to mill.' In a former report we attempted to show that this Society was instrumental in settling that ques-

tion,—that it was partly, at least, through the doctrine preached in this hall, and the examples set in our fields, that a new impulse was given to agriculture in this State, giving at the same time all due credit for the liberal provision made by our Legislature, for our encouragement.

This work has been already so far accomplished, that there is little fear that with the present views of the agriculturists of Maine, and the exertions which are being made, we shall not in all future time supply ourselves with bread from our own soil, and soon have a surplus for exportation. But this effected, our labors are not to cease, nor our exertions to be relaxed. We are not independent till our exports, in the whole, are equal to our imports. We shall not increase in wealth till the balance of trade is in our favor. This can only be accomplished by increasing our manufactures. It is barely possible in the present state of things, that we, as a State can hold our own, and this by means of our lumber, which is fast diminishing. Let the present policy be pursued for half a century, and what shall we have to exchange for the numerous articles which we now import? Our lumber will be gone. Our granite, lime, wool and beef will be but as a drop in the bucket, compared with our necessary importations, unless we manufacture more.—Maine to sustain herself must become a manufacturing State. True we may in time supply agricultural products to a large amount for exportation, and a large amount indeed will be required, if we continue to depend on other countries and other States for so large a share of the common conveniences of life; larger than will be furnished for a century to come, allowing improvement in agriculture to advance at its present pace, which is not slow. Good policy requires that every thing be done by the State, consistent with its means, for the encouragement of manufactures, not only as a certain means of increasing her wealth, and rendering her independent and respectable; but of improving the moral condition of the community. Let Manufactories be established in our towns and villages, to give employment to the youth, and "moral reform" is immediately expected.—Want of employment, idleness is the parent of almost all the vices and crimes which disturb the peace of society.

An industrious and enlightened people are invariably a happy and virtuous people.

We bring this subject before you, believing it to be one of vital importance to the State, and one that requires action. But before action there must be thought and discussion. It is to be hoped that the agricultural survey of the State, now under discussion in our legislature, will be carried into effect. A comparison of our exports with those of Massachusetts as exhibited by the recent survey of that State, with comparatively inferior advantages, will do much towards placing the subject in its true light.—Manufacturing should be brought to the aid of agriculture, not only by manufacturing establishments, to create a market for our produce, but upon a small scale, such as farmers can carry on within themselves during our long winters. Every farmer who has a family of boys, should provide some method of keeping them employed not merely as a matter of profit to himself, but as a sort of safe guard against the corrupting influence of idleness. At a trifling expense a farmer may fit up an establishment for the manufacture of rakes, scythe-stocks, fork and hoe handles, horse rakes and the like agricultural implements; casks for apples, potatoes, grass seed and other purposes for which they are wanted; wooden measures and sieves, to say nothing of wooden nutmegs, all of which would find a ready market. In this manner some money may be saved in the State, some gained to the individual, and what is better, idleness and mischief would be driven from among us. Besides

the effect which an increased demand for labor has in a pecuniary and a moral point of view, its bearing upon intellectual improvement is worth considering in this place. Habits of industry are so essential to the acquisition of knowledge in any of the sciences that were there no other means of acquiring them, it would be better for the boys and young men of the present day to have some experience of those times, when three or four hours labor, at the wood-pile, each day, while attending a short term of school, were necessary to provide fuel to warm a log hut. This remark may be thought severe, but must be acknowledged to be true. Much is said at the present day about improving the condition of our common schools, making appropriations for common schools—we have not schooling enough—and the like. We would not be understood that we are opposed to the exertions which are being made in the cause of common school education; but we do say, the defects in this system are not so great as in the habits of the scholars; that there is not so much wanting in the length of our schools as in the improvement of what we have. A great improvement has been made within a few years in the manner of communicating instruction, and in the books which are used in our schools. The facilities for acquiring an education are greatly improved, and no doubt are susceptible of further improvement. But with these increased advantages what are the facts? That a greater proportion of the scholars on leaving our schools are destitute of what may be termed a tolerable education, than those were 20 or 30 years ago; that a far smaller proportion leave them with a good education than did at that time. That the scholars who attend our common schools, taking them as a whole, are not so well prepared on leaving them, for the common business of life as they were at the time mentioned, under inferior advantages as it regards qualifications of teachers, fitness of books, convenience of schools rooms, and length of schools. There are instances of families, in which the children are inured to such habits of industry and application, that they derive all possible advantage from their schools, and they receive a much more thorough education in the common schools, than any did in former times. By our remarks on this subject you will not infer, that it is our opinion that a smaller proportion of the youth of the present day receive a good education than did in former times; this is far from being the case. The numerous academies and high schools now in operation, afford means of thorough instruction which are improved by a large proportion of the youth of both sexes. We refer particularly to that portion of them who attend the common schools only, and that is the larger portion.

It is this larger part, this majority that is to give character to the whole. In devising plans and adopting measures for the future good of a country, it is to the majority that we are to look, not to small portions. Let any one at this representation and believe it is a true one, and say if action is not necessary, if some means should not be devised to give employment to our youth. Would not the time and money which are spent in giving and hearing lectures on education and in writing upon the subject, be more effectual in producing the very desirable end which is aimed at, if it were expended in looking out employment for idle hands? In lecturing upon the value of time and showing the uses to which it may be applied? In devising some method of training, which shall lead to permanent habits of industry? If this can be done, with our present system of common school education, ignorance, misery and crime will no longer infest our borders. We are told of the hardships and privations endured by our fathers, in the early settlement of the country; and even some of us have known what it is to wait many of the privileges enjoyed by the youth of the present day.

But the condition of those who have the disposition and habits of improving their circumstances with inferior facilities, is better than that of those who are surrounded with all things needful, but do not profit by them. If our condition as a community is ever to be greatly improved, the habits of the rising generation are to be looked to for the assurance of that improvement.

If those who follow us are to be intelligent, prosperous and happy, and fill their places with honor to themselves and the community, we must look to their early habits for a guarantee. They must be furnished with employment, trained to business. They must be inured to that kind of exercise which nerves the arm, and gives vigor to the mind. To this object, as the permanent basis of our country's independence, we call the attention of all who have her interests at heart, all who have any thing to do in the direction of affairs.

We have not so far forgotten what is expected of us on occasions like this, as to omit altogether the usual subjects which form our report, the management of farms and stock. It has been repeatedly urged upon the tillers of the soil, that their dependence for profits was not so much upon the use of the plough as it should be—that the grain and root crops were not cultivated so extensively as would be for their immediate interest, nor for the improvement of their farms. Though a great change has taken place, in this respect, it is not sufficiently radical. Too large a portion of our land is yet annually cropped with the scythe. At one time we recommended the course of culture adopted by a New-York farmer, as described in one of the agricultural papers not long since, which was to keep two-thirds of the land suitable for tillage on a farm under the plough, the rest in grass, and never to mow more than two crops of hay from any field before ploughing it. We now bring forward another plan, the result of some calculation, not yet proved by experiment, and suggest the inquiry whether any of our tillage land should be mowed at all; whether it would not be better to turn out to pasture all our up-land that we are not able to keep under the plough, and depend entirely on straw, fresh-meadow hay, grain and roots for keeping stock in winter. An estimate has been made of the comparative expense of wintering stock on English hay, and on straw and roots, which resulted in favor of the latter mode. The statement has not yet been controverted, nor can it be. Facts go to prove that stock may be kept through the winter, even on wheat straw and roots, in better condition and at less cost than on hay alone. The estimate to which we refer, was based upon the supposition that a cow, kept upon English hay, would require 20 lb. per day at \$10 per ton, 10 cts.

By the other mode, 16 lb. of straw, 3 nearly,
at \$3,50 per ton, 6
16 lbs. of roots, at 25 cts. per bu. 6

Balance in favor of straw and roots, 1 ct. per day

In this estimate the roots are put at double the average cost. Three cents is as high as the 16 lbs of roots should be reckoned; this would give four cents per day in favor of the new mode of keeping, or about seven dollars for the winter.

To go on with our calculation, suppose a farmer has two acres of good land in mowing, which will produce two tons of hay. The cost of cutting and curing the hay we will set down at \$4.

Suppose instead of mowing he should plough the two acres and sow wheat. The labor of ploughing, sowing, harvesting and threshing after the first time, may be performed for seven dollars per acre \$14,00

Produce 12 bushels per acre—24 bushels from which deduct 4 bushels for the seed, and we have 20 bushels at \$1,50 30,00

This gives, above the cost of production, 16,00
To this we may add the cost of making the hay

and we have in favor of ploughing \$20,00
The straw will be about equal in weight to the
hay which would have been produced, at least
enough to keep a cow.

Now, if from the \$20 dollars, he takes \$6 to
purchase of another field 50 bushels of ruta
baga, or mangel wurtzel to feed to his cow with
the straw, she will be in better condition in the
spring, than she could have been with the hay
alone, and the addition of \$14 worth of grain
will be made to his own gain, and to the actual
wealth of the world. The result of sowing bar-
ley or oats would be nearly the same. If, as
it has been stated, the same field may be suc-
cessively cropped with grain, without dimin-
ishing its fertility, why are we under the ne-
cessity of cutting hay for our stock? Should
turning under the stubble fail to render our
lands productive, there can be no doubt that
a rotation with grain and the hoed crops, with
an occasional manuring, would be sure to give
good crops as long as we choose to keep them
under the plough. We suggest these ideas for
your consideration; some objections will be
raised to them no doubt, but the theory looks
too plausible to be rejected without experiment.

It was proposed to take up the subject of
pork raising in this report, and treat more large-
ly upon it than we shall be able to, having oc-
cupied so much time upon other topics. It was
intended to present a course of summer and
winter keeping to be pursued in raising pork,
to make it profitable. It can hardly be expect-
ed that the present prices of pork can continue
long; but it is certain that we can supply our
own markets, that we can compete with Ohio
or any other State in the Union in hog raising.
With a good breed of hogs and a proper course
of keeping, we can raise pork as cheap as it
can be raised any where. From the same
number of acres of land, and the same amount
of labor, Maine can produce as much pork as
any section of the United States. No portion
of the earth is better adapted to the culture of
roots than this, and corn and grain are not so
difficult of culture but that we can raise suffi-
cient of it, to supply our hogs with a portion
mixed with other food to make as large and as
fat porkers as are made at the West, and at as
cheap a rate too.

In selecting a breed of hogs we should seek
one of small bones and that mature early. The
Mackay, Bedford or Berkshire seem calculated
to give us exactly what we want for judicious
crosses with other breeds which we have among
us.

As to keeping, one principle is important,
which is, never to increase the number of hogs
beyond what you have the means of keeping in
thriving conditions during the whole time.
More attention should be paid to the comfort
of the "swinish multitude" to keeping them
warm in cold weather. It will not be necessary
to dress them in jacket or trousers and set
them to conducting the editorial department of
a public Journal, but warm pens, and clean
soft beds with plenty of food will be all that is
required. A Mr Coolidge of Waterford in the
County of Oxford has tried the experiment of
keeping his hogs in the dark, which was attend-
ed with very satisfactory results. If it has the
same effect that it has on turkeys and stud
horses to keep them quiet and peaceable it is
no doubt worth trying. In connection with
hog raising we will bring to your notice a vari-
ety of bush-pea which is said to produce fifty
bushels to the acre, and not liable to lodge. A
Mr Haines of Burnham, in Waldo County,
who has raised them says he sows four bushels
to the acre, that they twine together in such a
manner as to stand up in opposition to wind
and storms and have produced him 50 bushels
to the acre. The question arises, have we been

id the habit of sowing enough seed of the bush
pea?

In conclusion we express our conviction that
the subject of encouraging the productive
branches of industry deserves and will receive
your individual and associate support, and that
your exertions in this cause will be attended
with that success which has attended all your
exertions and crowned all your labors.

NATHAN FOSTER } Trustees of the
ELIJAH WOOD } Ken. Co. Ag.
OAKES HOWARD } Society.

Winthrop, February, 1839.

ON HEALTH IN CONNECTION WITH AIR.

We are inclined to think, that our health de-
pends almost as much on the air we breathe, as
on the food we eat; and few are impressed
enough with the necessity of attending to the
securing of their health as connected with the
air, which is inhaled. In our public and private
apartments, in our schools and places of wor-
ship, far too little attention is paid to ventila-
tion. In some cases, one would think men were
anxious to exclude the pure air of heaven from
their dwellings, especially during winter, not
reflecting upon the injurious consequences of
breathing over and over the same air. Impure
air, like other slow poisons, so gradually under-
mines the healthy constitution, that its influ-
ence is not understood, and the mischief is not
put down to the proper cause.

The subject of ventilation is worthy the at-
tention of every man who regards his health; &
to understand it he must pay a proper consider-
ation to the constitution of the atmosphere; to
the changes produced in the air by respiration;
and to the comparative influence of air upon
the animal economy before and after such
change. Let us glance at some of the leading
facts connected with this subject.

Chemists tell us that the air which we breathe
and on which we are every moment, under
Providence, depending for life, is composed
principally of two transparent, colorless gasses,
oxygen and nitrogen, combined in the propor-
tion of one part of the former to four parts of
the latter. Oxygen is not improperly called the
pabulum of life, as a due supply of it is essen-
tial to the continuance of the vital functions.
The principle use of the nitrogen is to dilute the
oxygen. The wisdom of a bountiful Creator is
conspicuous in so arranging the atmosphere
that these gasses are mixed in that proportion
which is best adapted to secure the object of
respiration on the animal economy. Supposing
the oxygen were to be in a much greater pro-
portion, the effects on the human system would
be of too stimulating a nature, and if long re-
spired would bring about fever; and on the oth-
er hand, if the proportion were much less, lan-
guor and debility would ensue.

Besides oxygen and nitrogen the atmosphere
contains a very small portion of carbonic acid
gas, or fixed air, and a variable quantity of wa-
ter vapor. The carbonic acid does not gener-
ally exceed one part in a thousand, and when-
ever it becomes abundant, the air is unfit to
breathe, for this gas is a deadly poison. An an-
imal placed in it is instantly suffocated; and lives
are frequently lost from inhaling carbonic acid,
produced by burning charcoal in close rooms.

Chemical analysis affords the means for ac-
curately ascertaining the amount of carbonic
acid expired from the lungs, but it is not easy
to fix upon an average quantity, from the fact
that it varies with the ever varying state of the
system. A moderate system gives more than
three hogsheads of oxygen consumed by one
individual in twenty-four hours, and the same
quantity of carbonic acid produced. If this be
taken as the average quantity, every person is
daily exhaling into the atmosphere around him
two or three hogsheads of this deleterious gas,
while at the same time he takes from it about the
same quantity of vital air. As only one-fifth of
the air is oxygen, more than fifteen hogsheads

of air are entirely deprived of oxygen by a sin-
gle individual in a day.

Keeping these facts in view, it is easily seen
that a frequent change of air is necessary for
the health of the people occupying the same
apartment. Take a room, each side of which
measures ten feet, and each individual, at the
usual rate of consumption, would consume the
oxygen in that time. But it should be remem-
bered by all who care for their health, that the
air is unfit for sustaining life long before all the
oxygen is exhausted. In short, the same por-
tion of air cannot be breathed a second time
with perfect impunity. If it once pass through
the lungs, it becomes so far vitiated as to ren-
der it essentially, unwholesome.

One reason why many children and young
persons often look so pale and feeble, and fall
early victims to diseases of the head or lungs is,
that parents will not give them enough exercise
in the open air, and will permit them to be shut
up for hours in an ill-ventilated school room, on
the false principle that by long hours they must
acquire a proportional greater amount of knowl-
edge—than which nothing is more absurd.—
Madison Courier.

SUMMARY.

DESTRUCTION OF THE KENNEBEC DAM. This ill-
fated work, about which so much solicitation has been
felt, is at last entirely destroyed, with a large amount
of other property. The late rain having made a fresh-
et the lumbermen at Moosehead lake cut away the
Dam at the outlet of the lake, which caused an unusu-
al freshet in the river, and on Thursday evening it was
noticed that the water had made a small breach thro'
the bank of the canal at the west end of the Ken. Dam,
and early on Friday morning they attempted to stop
it by pressing in shavings, straw, &c., but without
success. It soon attained a formidable size, and it was
at once seen that all was lost. The water washed
away the bank at the west end of the Dam so rapidly
that last evening the canal and part of a new saw mill
containing six saws, ready to be put in operation to-
day, (June 1,) was carried down the stream, and early
this morning the remainder of the saw mill and a large
house built by the corporation for a boarding house,
were undermined and launched into the river with a
tremendous crash. The water now pours in a torrent
round the west end of the Dam, and the bank is fast
crumbling away. It has already fell in to within twenty
feet of the house of the late Judge Bridge, which
is situated on a high and beautiful eminence, and
which is now being pulled down. The house of The-
odore Bridge, Esq. is also being removed, as it ap-
pears obvious that the places where these houses stand
will ere long be the bed of the Kennebec river. The
main Dam still stands firm and perfect. The loss is
estimated at not less than half a million.

P. S. The stage Driver informs us that the cellar of
the Judge Bridge house went into the river yesterday
(Sunday) afternoon. The water has somewhat subsided.

Texas. Dates from Houston via New Orleans are
to the first of May. Much excitement appeared to ex-
ist in the new republic, against certain speculators who
proposed to smuggle in slaves from Texas, by landing
them on the United States side of the Sabine. The
United States authorities have given Col. Green, the
collector of the Sabine, a force to repel this business;
and yet it was said to be going on. The general news
from Texas represents the country as quiet, the crops
as promising well, and the Indians about to conclude a
treaty. The state debt of the new republic is estimat-
ed at \$2,200,000; assets \$3,018,000. *N Y Despatch.*

Notice to Wool Growers.

THE Readfield Cotton and Woollen Manufacturing
Company will manufacture wool into Cassimeres,
Plain Cloths, Sattinets, Blankets, Flannels, &c. on shares,
or by the yard at the following prices, viz;

Sattinets, (including the warp,) from 33 to 37 1-2 cents
per yard; Common Plain Cloth from 33 to 42 cents per
yard; Cassimeres from 42 to 60 cents per yard; Blan-
kets over two yards wide from 33 to 42 cents per yard;
Flannels from 17 to 25 cents per yard; Pressed cloth 25
cents per yard.

Said Company having the newest improved machinery
and the best of workmen will manufacture with neatness
and despatch, and hope to obtain a share of public patron-
age. **JOSIAH PERHAM, JR., Agent.**
Readfield, May 30, 1839. Sm20

POETRY.

THY WILL BE DONE.

When sorrow casts its shades around
And pleasure seems our course to shun;
When nought but grief and care is found,
How sweet to say 'Thy will be done.'

When sickness lends its pallid hue,
And every dream of bliss has flown;
When quickly from the fading view,
Recede the joys that once were known:

The soul resign'd will still rejoice,
Though life's last sand is nearly run;
With humble faith and trembling voice,
It whispers soft, 'Thy will be done.'

When call'd to mourn the early doom,
Of one affection held most dear,
While o'er the closing silent tomb,
The bleeding heart distills the tear:

Though love its tribute sad will pay,
And early streams of solace shun—
Still, still the humble soul will say,
In lowly dust, 'Thy will be done.'

Whate'er O Lord, thou hast design'd,
To bring my soul to thee in trust,
If miseries, or afflictions, kind,
For all thy dealings, Lord, are just.

Take all—but grant in goodness free,
That love which ne'er thy stroke would shun,
Support this heart, and strengthen me
To say in faith, 'Thy will be done.'

MISCELLANEOUS.

Tribute to the Yankees. M. Chevalier, in his Letters on North America, recently published, speaking of the enterprise and industry of the New Englanders, says:—"At Baltimore even as at Boston, in New Orleans as at Salem, in New York as at Portland, if they cite you a merchant who by intelligent combinations, has realized and preserved a large fortune, and if you demand whence that man comes, it is a Yankee, is the reply. If in the South you pass before a plantation which appears better regulated than all the others, with fine avenues, and the habitations of the negroes better arranged and more comfortable—'Ah,' says one to you, 'this belongs to a man from New England—he is a smart man.' In a village of Missouri, by the side of a house whose windows are broken, whose exterior is dirty, before the door of which are seen fighting the children, with tattered garments, you perceive another, all freshly painted, surrounded with a barrier, simple, but well preserved and lime washed, with a dozen trees well pruned, disposed all around; through the windows you distinguish, in a little saloon, shining with neatness, the young boys well combed, and the little girls clad almost in the last Parisian mode. Both of these habitations belong to farmers; but one comes from North Carolina, the other has originated in New England. On the river of the west, you hear cited a steamboat to which no accident has ever happened, which the travellers and the merchants seek with the greatest zeal—the captain is a Yankee. At New Orleans, opposite the Levee, you perceive a fine building, which all the passengers admire—it is still a Yankee who owns it."

Substitute for the Sun.—Lieut. Drummond, of the British Navy, has invented a light for light-houses, which is produced by passing a stream of oxygen gas, through spirits of wine, upon unslacked lime, and possesses an intensity fifteen times greater than gas light. But a Mr. Gaudin, of Paris, claims to have discovered a process for producing a light as strong as the sun, or thirty thousand times stronger than gas, and on the strength of his discovery, proposes a "magnificent project" which is to erect in the island of Point Neuf, a lighthouse five hundred feet high, in which is to be placed a light from a hundred thousand to a million gas pipes strong, the power to be varied, as the nights are light or dark. Paris will thus enjoy, says the Bos-

ton Transcript, a sort of perpetual day—as soon as the sun of the heavens has set, the sun of the Point Neuf will rise. It may then be almost literally said of that metropolis, "And there shall be no night there." What a fine world this will be to live in, when, on a "dark day" or in a "dry time," we can "light up," or "shower down," at our pleasure, as the case may require.

Interesting Experiment. The following method of obtaining natural Flowers in Winter, any day you please, we copy from an old scientific work:

Choose some of the most perfect buds of the flowers you would preserve, such as are latest in blowing, and ready to open; cut them off with a pair of scissors, leaving to each, if possible, a piece of the stem about three inches long; cover the end of the stem immediately with Spanish wax, and when the buds are a little shrunk and wrinkled, wrap each of them up separately in a piece of paper, perfectly clean and dry, and lock them up in a dry box or drawer, and they will keep without corrupting.

In winter, or in any other time, when you would have the flowers blow, take the buds over night and cut off the stem sealed with Spanish wax, and put the buds into water wherein a little nitre or salt has been infused, and the next day you will have the pleasure of seeing the buds open and expand themselves, and the flowers display their most lively colors and breathe their agreeable odors.

Ancient Relics. The Marshall County Sentinel, published at Elizabethtown, Va, about twelve miles below Wheeling, contains an account of the opening of a mound, in that vicinity, which, from its great size, has obtained the name of the mammoth mound. It had for a long time been an object of curiosity to visitors, and the proprietors of the land on which it was situated, at last determined to open it, in order to ascertain its contents; to explore it effectually, and possibly to make it an object of greater attraction. Accordingly, on the 19th of March, 1838, they commenced excavating on the north wing, cutting an arched tunnel or entrance, 10 feet high, 7 feet wide, and 111 in length before they struck the mouth of the lower vault. This vault was found to be 7 feet high, and in length, 8 by 12 feet, north and south. After commencing the tunnel, the first thing of any note that was discovered, was the appearance of charcoal, with fragments of burnt bones, continuing to the entrance of the vault. Within 14 feet of the mouth of the vault, they struck the original entrance or passage, descending like the entrance of a cellar, supported, apparently, by timbers. Within this vault were found two skeletons—the first nearly perfect, not one tooth missing, supposed to have been placed erect, but had fallen near the wall, with the head south, and thereby preserved by the crumbling of sand over it. With this skeleton there were no beads or trinkets. On the opposite side lay the other skeleton, bones much broken to pieces. With this skeleton many trinkets were found, to wit: 650 ivory beads; an ivory ornament of peculiar construction, found near the breast, about 6 inches in length, &c.

From the middle of this vault they proceeded to cut or excavate a rotundo 11 feet in diameter, through the middle to the top, a distance of 63 feet. After proceeding about half way, they struck another vault, 8 feet by 18 east and west. In this vault were found one skeleton and its trinkets, consisting of 1,700 ivory beads, 500 sea shells, 150 pieces of ising-glass, and 5 copper bands, worn round the wrist—weighing seventeen ounces; also, a small stone about two inches in length and 1 1-2 in width, with marks resembling letters and figures, supposed to be the name, &c., with several other small trinkets.

These discoveries, so interesting to the antiquarian, may tend to throw some light on the original inhabitants of this continent, for that it was inhabited, in years long past, by a warlike, thrifty, and probably intelligent people, there is no room for doubt. Who are they? Whence did they come? are questions which will forever attract the attention of those who feel an interest in the probable existence of a great and warlike race, of whom history has left no record. *Baltimore Sun.*

Remarkable Toad.—Two letters of J. Arscott, Esq. of Tehott in Devonshire, concerning the longevity of a toad, deserve some notice. These letters were addressed to Dr. Milles, Dean of Exeter, and by him communicated to Mr. Pennant in the year 1768. "It would give me the greatest pleasure," says Mr. Arscott, "to be able to inform you of any particulars worthy Mr. Pennant's notice, concerning the toad who lived so many years with us, and was so great a favorite.—It had frequented some steps before the hall door some years before my acquaintance commenced with it, and had been admired by my father for its size (which was of the largest I ever met with,) who constantly paid it a visit every evening. I knew it constantly myself above thirty years, and, by constantly feeding it, brought it to be so tame, that it always came to the candle, and looked up, as if expecting to be taken up and brought upon the table, where I always fed it with insects of all sorts.—You may imagine that a toad, generally detested (although one of the most inoffensive of all animals,) so much taken notice of and befriended, excited the curiosity of all comers to the house, who all desired to see it fed; so that even ladies so far conquered the horrors instilled into them by nurses, as to desire to see it." In the second letter Mr. Arscott remarks, "I cannot say how long my father had been acquainted with the toad before I knew it; but when I was first acquainted with it, he used to mention it as the old toad I have known so many years; I can answer for thirty six years."—"In respect to its end, had it not been for a tame raven, I make no doubt it would have been now living, who, one day, seeing it at the mouth of its hole, pulled it out, and though I rescued it, pulled out one eye, and hurt it so, that, notwithstanding its living a twelvemonth, it never enjoyed itself, and had a difficulty in taking its food, missing the mark for want of its eye. Before that accident it had all the appearance of perfect health.—*Smellie's Natural History.*

Let no man anticipate uncertain profits.

How to cure Smokers.—In Hoopin, China, the singular punishment of cutting out a portion of the upper lip, to prevent opium smoking, has been resorted to. It would be equally efficient to prevent tobacco smoking.

The Steamboats Bee and Indian, the Little Rock Advocate says, have both been sunk in the river above that place.

The Maine Farmer,

And Journal of the Useful Arts,

Is published weekly at Winthrop by SEAVEY & ROBBINS, and Edited by E. HOLMES & M. SEAVEY.

Price \$2.00 a year. \$2.50 will be charged if payment is delayed beyond the year. A deduction of 25 cents will be made to those who pay CASH in advance—and a proportionable deduction to those who pay before the publication of the 26th number, at which time payment is considered due.

Any kind of produce, not liable to be injured by frost, delivered to an Agent in any town in the State, will be received in payment.

Any person who will obtain six responsible subscribers, and act as Agent, shall receive a copy for his services.

A few short advertisements will be inserted at the following rates. All less than a square \$1.00 for three insertions. \$1.25 per square, for three insertions. Continued three weeks at one half these rates.

All letters on business must be free of postage.